## The Emperor's new clothes

Don Shelton noted<sup>1</sup> that William Smellie and William Hunter obtained a considerable number of the bodies they illustrated in their Atlases by the process of 'burking' (i.e. murdering these women to order). According to Shelton 'The two atlases depict dissections of over 30 pregnant subjects, mainly in the ninth month of pregnancy'.

Hunter illustrated a total of five pregnant women, all of whom were of 9 months gestation. The first of these women died suddenly, in the year 1750. The second woman had placenta praevia, and her death was associated with 'flooding of blood'. A third women possessed a full-term fetus with a breech presentation. A fourth woman possessed a full-term fetus. A fifth woman, after a natural labour, grew faint, and without any apparent cause, died two hours later. All of the other Plates displayed less than full-term fetuses.

Smellie's Atlas contained 39 Plates, many of which contained diagrams. A substantial proportion of the other Plates displayed similar fetuses, although in different positions. For example, in Plates 23 and 24 the same fetuses were observed, although the fetus in Plate 24, was shown delivered using forceps.

The incidence of maternal and fetal deaths during the 18th century among the lower classes was probably considerably more common than indicated by Shelton. According to Playfair,2 the causes of sudden maternal death during the late 19th century were probably very similar to that occurring during Hunter's and Smellie's time. Such conditions included puerperal eclampsia and pelvic deformity due to rickets or osteomalacia of pregnancy, as well as cord prolapse. Haemorrhage before and during delivery might also occur, such as due to placenta praevia or placental separation, as well as haemorrhage after delivery. Accordingly, there would be no justification to indicate that their bodies were obtained by 'burking'.

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Competing interests
None declared

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- 2 Playfair WS. A Treatise on the Science and Practice of Midwifery. 8th edn. 2 Volumes. London: Smith, Elder Company; 1893

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# William Smellie and William Hunter accused of murder ...

I fully endorse the quick responses of Wendy Moore and Tina Matthews to Don Shelton's paper, 'The Emperor's new clothes'.<sup>1</sup>

Given some of the complicated midwifery cases illustrated, it would have been as difficult to seek out some of the examples of rare midwifery cases in the living and have them murdered 'to order' as to open up graves at random and find such cases.

William Smellie actually suggests, in the preface to *A sett of anatomical tables*, that the subjects had been 'prepared on purpose'. His sometime pupil Peter Camper records in his diary of 1761<sup>2</sup> that Dr Smellie's figures 'were not all from real life... The children are placed in pelves of women, the children themselves looked natural, but the other parts were copied from other preparations...' Camper claimed he had on several occasions used forceps to deliver a fetal head from a corpse and subsequently 'made careful drawings and profiles' before the mother's body was further dissected.

It becomes apparent in Hunter's work that the 34 plates were taken from 12 different subjects.3 Hunter was also adept at preserving specimens with wax and used plaster casts, as was the practice in certain cities of Europe. This economy in the use of cadavers to produce a series of illustrations was no doubt complemented by the skills of the artists and engravers involved, who may upon occasion have resorted to some degree of 'artistic licence'. Rymsdyk, the main artist involved in the production of both the birth atlases also had lots of opportunity to become familiar with the subject material; not only did he draw for Smellie and Hunter but also for Nicholas Jenty,4 who incidentally reports one of his two pregnant subjects died near to term of a haemorrhage resulting from a diseased aorta and a lacerated pulmonary artery.

Historians aspire to contribute to a better understanding of the past and have 'obligations to their sources, their readers, the past and the public at large'. This is exemplified when those standing accused or maligned are no longer able to speak up for themselves, and become vulnerable to sensationalistic journalism. 6

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Competing interests
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- 2 Camper P. Cited by Johnstone RW. William Smellie the master of British midwifery. London: E & S Livingstone Ltd.; 1952
- 3 Thornton JL, Want P. William Hunter's 'The anatomy of the human gravid uterus' 1774– 1974. J Obstet Gynaecol Br Commonwealth 1974;81:7
- 4 Jenty CN. The demonstrations of a pregnant uterus of a woman at her full time. In six tables, as large as nature. Done from the pictures painted, after dissections, by Mr. van Riemsdyk. And disposed in such a manner, as to represent, completely, this state of pregnancy. London: [Publisher unknown]; 1758
- 5 Jordanova L. *History in practice*. London: Arnold; 2000
- 6 Campbell D. Founders of British obstetrics 'were callous murders'. The Observer 2010 February 7

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## Case not proven

Don Shelton's article<sup>1</sup> raises some interesting questions about the sources of William Hunter's and William Smellie's subjects for their obstetric atlases but it does not add up to a convincing case that they received murdered bodies. I cannot comment on Smellie's atlas, but it is not true that most of the subjects in Hunter's book were women in the final month of pregnancy. Hunter's atlas contains 34 plates of which the first 10 relate to just one woman, who died at full-term. Hunter refers in the text to two more women who died in or near their last month, amounting to a total of three women at full-term. But the point of the atlas was to depict pregnancy at all stages, so the book shows fetuses at various

stages of development, working backwards from full-term. So there were three full-term, or almost full-term women, all obtained in the years 1750-1751. Certainly it is unusual for full-term women to die. And Hunter was evasive about the source of his pregnant subjects, although he describes the second as having died 'of a flooding in the last month of pregnancy'. If the bodysnatchers dug up graves randomly, it would be highly unlikely they would find three full-term women in this space of time. But the bodysnatchers did not work randomly. Even in the mid-18th century, they had connections with gravediggers and sextons - in fact some of them were gravediggers and sextons - who knew who had died and where they were buried so they could arrange resurrections to order. When pregnant women died in hospital, those deaths were obviously known to doctors there who could simply order an exhumation (as Astley Cooper later described). Furthermore, when John Hunter mentioned the 'leading steps' to procuring a body being secret, he was probably referring to bodysnatching rather than murder. Surgeons were certainly discreet about this practice with good reason. John's own house was mobbed when human remains were discovered being taken away and at least one 18th-century surgeon was prosecuted for receiving dead bodies. So while it is not impossible that the women in Hunter's and Smellie's atlases were murdered (it is not correct to describe them as being 'burked' since that term did not come into use until after the Burke and Hare murders in 1827) it is not possible to make out a case based on laws of probability.

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1 Shelton D. The Emperor's new clothes. *J R Soc Med* 2010;**103**:46–50

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## Shelton's response

It is clear from their comments that no respondent has elected to read the supporting evidence referred to in my paper, where 150 pages of facts and evidence discuss in detail the points now raised.<sup>1</sup>

Camper's 1752 comment refers to the 20 line drawings, as he drew but one detailed drawing, plate 12. Hence, only 15 subjects were needed for Smellie's 39 plates and 17 for Hunter's 34 plates. In my full analysis, the 1750–1754 subjects are combined with those of Jenty and Shippen.

There was no network of resurrectionists in 1750–1754. Hunter's anatomy school commenced in late 1746 and he was the first anatomist to guarantee each student a subject. Prior to that, each London anatomist lectured upon one subject before his students, with single subjects resurrected as necessary. Resurrections were technically illegal, but condoned by authorities. Smellie never had an anatomy school and in 1750 Hunter only had about 50 students.

Undelivered subjects were extremely rare as doctors intervened to save the mother, or child if the mother died first. Applying MMR to Smellie's patient numbers infers one or two child-bed deaths per year, but undelivered cadavers were damaged by intervention and unsuitable as subjects.

As discussed in my analysis, resurrected cadavers were not fresh enough to reflect windows, as with Hunter's plate XXVI.

The supporting evidence shows murder was the only practical way for Hunter and Smellie to procure 20 fresh, undelivered cadavers within five years, when one, or perhaps two, undelivered subjects might have been expected, but those were rendered useless by intervention.

Even Hunter commented in his preface: 'the opportunities for dissecting the human pregnant uterus at leisure, very rarely occur. Indeed, to most anatomists, if they happen at all, it has been but once or twice in their whole lives.'

## **Don Shelton**

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None declared

#### References

1 Shelton D. *The Real Mr Frankenstein*. 2009. See http://www.therealmrfrankenstein. blogspot.com

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# **Erratum**

In the article by Ryan *et al.* (*JRSM* 2010;**103**:109–11)<sup>1</sup> 'malaena' should have been spelled 'melaena' throughout the paper.

## References

1 Ryan L, Bethune R, Habeeb K. Haematemesis and malaena as the first presentation of duodenal varacies. *J R Soc Med* 2010;**103**:109–11

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